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An Investigation into the Effects of a College Level Alcohol Education Course on the Implementation of Alcohol Education Instruction

Ross G. Lane
Western Michigan University

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AN INVESTIGATION INTO THE EFFECTS OF A COLLEGE LEVEL ALCOHOL EDUCATION COURSE ON THE IMPLEMENTATION OF ALCOHOL EDUCATION INSTRUCTION

by

Ross G. Lane

A Project Report
Submitted to the
Faculty of the School of Graduate Studies in partial fulfillment of the Specialist in Education Degree

Western Michigan University
Kalamazoo, Michigan
August, 1968
ACKNOWLEDGEMENT

This writer wishes to express his sincere appreciation and gratitude to Dr. William Carlson, chairman of the committee, for his understanding, patience, encouragement, and guidance in preparing this thesis. This writer is also grateful for the assistance and direction of Dr. Kenneth B. Engle, Dr. Imy V. Holt, and Dr. Stanley S. Robin.

Special mention is due the Division of Field Services, Western Michigan University, for supplying the materials used in this thesis.

Sincere gratitude is expressed to the Michigan Department of Public Health Alcoholism Program for providing the Alcohol Studies Fellowship which enabled the writer to continue his education and complete this thesis.
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CHAPTER I

THE PROBLEM AND ITS BACKGROUND

One of the major health problems in the United States today is alcoholism. Statistics from the U. S. Public Health Service indicate that of the ninety million drinkers in the United States approximately six million are diagnosed as alcoholics. Evidence of concern can be found in the statutes of all fifty states since each requires that instruction about alcohol education be given to each school child. In his book, Alcohol Education for Classroom and Community, McCarthy (1964) writes:

For many young people, the classroom represents the last opportunity for an unbiased consideration of the questions about alcohol. The organization of instruction to meet their psychological needs in this area is a social responsibility to which the school can make a unique contribution. However, this will require the application of the professional training and experience of mature teachers who are prepared to expend proportionately as much energy in organizing material and evaluating techniques for this subject as they would for any other teaching responsibility. In relatively few school systems in the country has instruction about alcohol been allotted the administrative sanction and the technical proficiency in the classroom that the importance of the subject warrants. (p. 8)

The Michigan State Department of Public Health Alcoholism Program has sponsored a two hour, one semester course in alcohol education in the Teacher Education Department at Western Michigan University each semester since September, 1963, for the purpose of providing professional training necessary for instruction about
beverage alcohol. The Alcoholism Program is interested in having this course evaluated to determine what impact it has had upon the participants' future involvement in alcohol education.

McCarthy (1949) states:

Educational objectives and responsibilities must take into account professional obligations and make adjustments to cope with changes in society. The obligations demand that the school should function with a high degree of professional autonomy in presenting social issues for discussion in the classroom. It is clear that educators have obligations to review and re-evaluate existing programs of teaching about alcohol in the schools. (p. 146)

Education has many characteristics that require separate attention. Recently, Stake (1967) commented:

Educational programs are characterized by their purpose, their content, their environment, their methods, and the changes that they bring about. Usually there are messages to be conveyed, relationships to be demonstrated, concepts to be symbolized, and understandings and skills to be acquired. (p. 15)

To date, there has been no evaluation of this course sponsored by the Michigan Department of Public Health Alcoholism Program and little has been written about the effects of college level alcohol education courses upon participants involvement in alcohol education.

Relevant Literature

A systematic review of professional literature yielded only two studies relevant to this investigation. In addition to the literature review, the author corresponded with the Head
Reference Unit of the Bureau of Educational Services, Michigan State Library Division, Dr. Milton M. Maxwell, Director of the Summer School of Alcohol Studies, Rutgers, The State University, and Dr. Robert Russell, Editor of the Journal of Alcohol Education. (See Appendix A for letters)

The two studies most relevant to this investigation were those of Babbitt and Beachnau. Babbitt (1959) studied the influence of graduates of the Midwest and Yale Institutes of Alcohol Studies upon Michigan Communities. The Midwest Institute was held for one week while the Yale Institute (now Rutgers Summer School of Alcohol Studies) was held for four. Both were attended by people from a multiplicity of disciplines and occupations who were sponsored by the Michigan State Board of Alcoholism (now Michigan State Department of Public Health Alcoholism Program).

The responses to a mail questionnaire by 180 Institute alumni indicated that the programs provided the impetus for increased interest and expanded activity in the areas of alcoholism and related problems. There were fewer individuals actively engaged in teaching alcohol education, (in comparison to numbers in other activities) although twenty-four teachers devoted more time to alcohol education instruction after attending Yale or Midwest. Further, there was some discrepancy between the amount of alumni activity between participants in the Midwest and Yale Institutes. It is speculated that the difference is traceable to the duration of the Institutes.
Beachnau (1965) surveyed the 435 persons who attended Schools of Alcohol Studies (Midwest, Yale, and Intercollegiate) during 1952-64, sponsored by the then Michigan State Board of Alcoholism. From the 300 who responded to his questionnaire, Beachnau found that only two were not actively involved in the field of alcoholism after returning from one of the Institutes, while 150 were active in committees on alcoholism or other citizen activities in alcohol related problems in the community. One hundred seventy-three had direct contact with and/or provided treatment for 93,972 alcoholics and/or their families.

The implications of these studies for this research are ambiguous for several reasons. First, the people attending the Institute were selected and provided with scholarships, whereas those taking the alcohol education course offered by Western Michigan University elect to do so without financial support. Second, the studies were surveys and no control groups were used for statistical comparison. Third, the authors failed to specify the educational level of the participants.

This review of relevant literature clearly reflects the paucity of sound research in this area and indicates the need for systematic evaluation of the effects of a college level alcohol education course upon the implementation of alcohol education instruction. This study is one step in that direction.
Course Description

Alcohol Education 555 is a two credit hour, one semester course offered to seniors and graduate students by Western Michigan University. The purpose of the course is neither to condone nor condemn the consumption of beverage alcohol, but to present objectively and discuss what is known and how social needs influence the use of it. Included in the presentation is information on physiological, psychological, and sociological aspects of the use of alcohol and the disease concept of alcoholism.

Considerable time is devoted to the effects of various amounts of alcohol on the human body; reflexes, nerve responses, and the digestive process. This includes the effects on thought process and behavior, especially driving behavior. Further discussion deals with alcoholism, its impact on the individual and his family, the probable theories of etiology, and the various approaches toward rehabilitation.

Information on culture, religion, and social stratification is presented and discussed to examine the kinds of influences on drinking behavior to further determine why people do or do not drink beverage alcohol.

Teen-age drinking is also discussed. Emphasis is placed on the lawful role of the teacher to educate young people about alcohol and its use. Methods and materials are presented and/or
developed to teach and discuss beverage alcohol with elementary, junior high, and senior high school students.

Resource people are used as well as audio-visual aids to broaden the student's knowledge and to provide additional meaning to the subject matter.

Presentation methods may be one of several styles—lecture-question, group discussion, or small group discussion.

**Purpose of the Study**

The purpose of the study is to determine what effects, if any, Alcohol Education 555 has had upon the participants subsequent involvement in alcohol education and to attempt to draw conclusions about the impact of such a course.

**Hypotheses**

The following are the hypotheses upon which the study was based:

1. There are more Western Michigan University students who have taken Alcohol Education actively involved in alcohol education than Western Michigan University students who have not taken the same course.

2. Western Michigan University students who have taken Alcohol Education 555 and are actively involved in alcohol education devote more time to alcohol education than Western Michigan University students who have not taken the same course and are actively involved in alcohol education.

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1The Hypotheses are reformulated in testable null form in Chapter II, page 13.
3. There are more Western Michigan University students who have taken Alcohol Education 555 and are actively involved in alcohol education who pursue additional training in alcohol education than those Western Michigan University students who have not taken the same course and are actively involved in alcohol education.

4. Western Michigan University students who have taken Alcohol Education 555 and are actively involved in alcohol education differ from Western Michigan University students who have taken the same course but are not actively involved in alcohol education in their perception of the topics presented in the course which contributed most to their understanding of alcohol education.

5. Western Michigan University students who have taken Alcohol Education 555 and are actively involved in alcohol education differ from Western Michigan University students who have taken the same course but are not actively involved in alcohol education in their perception of the topics presented in the course which contributed least to their understanding of alcohol education.
CHAPTER II

DESIGN AND METHODS

The design and methods used in the study are described under five headings: (1) Selection and Description of the Sample; (2) Instrumentation; (3) Methods of Securing the Data; (4) Null Hypotheses; (5) Limitations of the Study.

Selection and Description of the Sample

An experimental and control group were used in this study. The experimental group consisted of 145 of the total 184 students who had completed Alcohol Education 555 offered by Western Michigan University from September, 1963, to August, 1966. These subjects were the students whose scholastic records and addresses were available to the author through the Records Office at Western Michigan University.

The control group was a matched sample consisting of 145 students who did not take Alcohol Education 555. This group was matched with the experimental group on five variables; (1) time of academic work at the university: the control group attended the university during the same time as the experimental group; (2) age; (3) sex; (4) curriculum; and (5) educational level.

The ages of the subjects ranged from nineteen to sixty-three, the average age being twenty-nine for the eighty male subjects.
and thirty and one-half for the sixty-five female subjects in each sample.

The twenty-eight curricula of the subjects are condensed into appropriate schools in Table 2.1. Seventy-nine subjects were enrolled in twelve curricula of the School of Education; twenty-one in Guidance, seventeen in Teaching of Physical Education, twelve in Teaching of Elementary Education, eight in Secondary Education, three in Rural Life Education, two in Teaching of Health Education, two in Secondary Administration, one in Teaching of Junior High School, one in Special Education, and one in Elementary Administration.

Eight curricula were represented by twenty-two subjects in the School of Liberal Arts and Sciences. Eight of the twenty-two were in the General Curriculum, five were in Social Work, three were in Geography, two were in General Music, and one was in Teaching of Mathematics, Teaching of Social Studies, Language, and Sociology, respectively.

Seven subjects; three in Business Education, two in Business Administration, one in Masters of Business Administration, and one in Masters of Business Education came from the School of Business.

Five more subjects were in the School of Applied Arts and Sciences in two curricula. Four of these subjects were in Teaching of Industrial Education, and one was in Mechanical Engineering Technology.

The remaining thirty-two subjects were either Non-Degree or unclassified. Thirty of these were classified Non-Degree,
i.e., they were graduate students not yet in any specific curriculum, and two were special students at the undergraduate level not seeking a degree.

TABLE 2.1
CHARACTERISTICS OF EXPERIMENTAL AND CONTROL SUBJECTS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Experimental Subjects</th>
<th>Control Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>n = 145</em></td>
<td><em>n = 145</em></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Female</td>
<td>30.5</td>
<td>30.5</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Applied Arts &amp; Sciences</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Non-Degree</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Unclassified</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master's Degree</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Master's Degree Candidate</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Non-Degree</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Senior</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Junior</td>
<td>5*</td>
<td>5</td>
</tr>
<tr>
<td>Sophomore</td>
<td>2*</td>
<td>2</td>
</tr>
<tr>
<td>Unclassified</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

*For reasons unknown to the writer, seven underclassmen were permitted to elect and complete Alcohol Education 555 which is designed only for seniors and graduate students.*
Instrumentation

The mail questionnaire was selected because of the wide geographic location of the subjects used and the ease with which the questionnaire could be distributed. (See Appendix B for copy). Whitney (1957) believes that the information which can be obtained by surveys is so valuable that it is questionable whether the student of educational problems can afford not to use the survey research techniques now available. In the Encyclopedia of Educational Research, he concludes:

The current impetus to such research has been the possibility of going beyond descriptive statistics. Relationships can now be tested by survey procedures, thus giving this technique a position in the methodology of social science. (p. 450)

On the basis of Whitney's premise, a questionnaire was constructed. Revisions were then incorporated at the suggestion of committee members. The following criteria were used to assure its accuracy: (1) brevity to facilitate completion; (2) interest to encourage response; (3) clarity of questions, i.e., each question having only one meaning (Goode, 1963); (4) neutrality of questions, i.e., questions not predisposing subjects to a particular answer (Cannel and Kahn, 1953); and (5) simplicity of response, i.e., questions requiring only checks, circles, and one word responses to facilitate return (Robin, 1965).

Comparable questionnaires consisting of nine questions were administered to both groups. However, for the purpose of eliciting
responses concerning topics presented in Alcohol Education 555, two additional questions were added to the questionnaire of the experimental group.

The questionnaire was designed to yield data relevant to occupation, employment setting, presence of alcohol education in the employment setting, personal activity in alcohol education in the employment setting, amount of time devoted to alcohol education by those actively involved, and the amount of formal alcohol education training the individual had received. The additional questions included in the experimental groups' questionnaire had statements relative to topics presented in Alcohol Education 555 that contributed either most or least to the understanding of the individual concerned with alcohol education. These statements were assumed to be relevant to the proposed objective of the study.

Method for Securing the Data

The procedure followed was one developed for securing a high rate of return and consisted of a minimum of two and a maximum of five contacts with the potential respondent being contacted at seven day intervals (Robin, 1965). \(^1\) (For copies of the letters sent, see Appendix C.)

Null Hypotheses

The following hypotheses are formulated in the testable null form.

1. There is no difference in the number of experimental and control subjects actively involved in alcohol education.

2. There is no difference in the amount of time devoted to alcohol education by those experimental and control subjects actively involved in alcohol education.

3. There is no difference in the number of experimental and control subjects actively involved in alcohol education that pursue additional training in alcohol education.

4. There is no difference between the experimental subjects actively involved in alcohol education and experimental subjects not actively involved in alcohol education in their perception of the topics presented in the course which contributed most to their understanding of alcohol education.

5. There is no difference between the experimental subjects actively involved in alcohol education and experimental subjects not actively involved in alcohol education in their perception of the topics presented in the course which contributed least to their understanding of alcohol education.

The .05 level of probability was selected for rejecting the null hypothesis.

Limitations of the Study

Inferences to be drawn from this investigation are valid only as the questionnaire used is a valid instrument, i.e. the questions on the questionnaire had only face validity where most
Stringent forms of validity testing may have been more desirable. Considerable caution should be used in generalizing from results of this study to larger populations because the total population of the samples used came from one university in Michigan.
CHAPTER III

TREATMENT AND ANALYSIS OF DATA

Treatment of Data

The data analysis was divided into the following categories:
(1) the number in each group actively involved in alcohol education;
(2) the occupations of those actively involved in alcohol education;
(3) the employment settings of those actively involved in alcohol education; (4) the amount of time devoted annually to alcohol education by those actively involved; (5) the amount of formal alcohol education training received by those actively involved in alcohol education; (6) the topics presented in Alcohol Education 555 that contributed most to the experimental group's understanding of alcohol education; and (7) the topics presented in Alcohol Education 555 that contributed least to the experimental group's understanding of alcohol education.

Interpretation and analysis that follow were based on data obtained from questionnaires returned by ninety-two percent of the experimental group and ninety percent of the control group.

Analysis of Data

Reported in Table 3.1 are the twenty-three experimental and eight control subjects actively involved in alcohol education.
along with the eighty-nine experimental and one hundred fourteen control subjects not actively involved in alcohol education.

### Table 3.1

**Comparison of Experimental and Control Subjects by Type of Involvement**

<table>
<thead>
<tr>
<th>Type of Involvement</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 112</td>
<td>n = 122</td>
</tr>
<tr>
<td>Actively Involved in Alcohol Education</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>Non Actively Involved in Alcohol Education</td>
<td>89</td>
<td>114</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 10.57 \quad p < .01 \]

The question as to whether significantly more experimental subjects than control subjects are actively involved in alcohol education was assessed by a two-by-two chi-square test. The chi-square value was 10.57, with one degree of freedom (\( p < .01 \)). Therefore, the null hypothesis that there is no difference in the number of experimental and control subjects actively involved in alcohol education is rejected.

Table 3.2 reports the responses of the twenty-three experimental subjects and eight control subjects actively involved in alcohol education to the questions of occupation and employment.
setting. An inspection of the table clearly indicates that the experimental subjects involved in alcohol education were employed in a greater diversity of settings than the control subjects so involved.

**TABLE 3.2**

THE FREQUENCY OF EXPERIMENTAL AND CONTROL SUBJECTS ACTIVELY INVOLVED IN ALCOHOL EDUCATION BY TYPE OF EMPLOYMENT

<table>
<thead>
<tr>
<th>Type of Employment</th>
<th>Experimental Subjects</th>
<th>Control Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 23</td>
<td>n = 8</td>
</tr>
<tr>
<td>Elementary School Teacher</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Jr. High School Teacher</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>High School Teacher</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>College Instructor</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Social Worker</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>23</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

One elementary school teacher, six junior high school teachers, fourteen high school teachers, one college instructor and one social worker constituted the twenty-three experimental
group subjects actively involved in alcohol education. All eight control subjects actively involved in alcohol education were high school teachers.

Table 3.3 compares the twenty-three experimental and eight control subjects actively involved in alcohol education concerning the percentage of time devoted to alcohol education. The question as to whether the experimental subjects actively involved in alcohol education devote more time to alcohol education than control subjects so involved was tested by a two-by-two chi-square test, using Yates' correction. The chi-square value was .08 with one degree of freedom (p > .95).

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Experimental Subjects n = 23</th>
<th>Control Subjects n = 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>5+</td>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

\[ x^2 = .08, \ p > .95 \]

Therefore, the null hypothesis that there is no difference in the amount of time devoted to alcohol education by those experimental
and control subjects actively involved in alcohol education cannot be rejected.

Hypothesis three was tested by comparing the responses of the twenty-three experimental and eight control subjects actively involved in alcohol education concerning the amount of additional training received in alcohol education. The experimental group had all received one semester of training in alcohol education, while it was assumed that the control group had received none. Additional training meant training beyond one semester for the experimental subjects and any amount of training for the control subjects. Since only two experimental subjects and one control subject had received additional training in alcohol education, no test of significance is possible. Therefore, the null hypothesis cannot be tested.

It is interesting to note that only one control subject actively involved in alcohol education received alcohol education training. It would appear that the assumption made about the lack of training of the control subject was realistic.

Table 3.4 reports the frequency of responses by 110 of the 112 experimental subjects who responded to the question of the course topic that contributed most to their understanding of alcohol education. Eighty-seven of the 110 subjects were not actively involved in alcohol education and twenty-three were. Two of the 112 experimental subjects who returned the questionnaire did not respond to this question.
TABLE 3.4

FREQUENCY OF RESPONSES BY TWO TYPES OF EXPERIMENTAL SUBJECTS TO COURSE TOPIC CONTRIBUTING MOST TO THEIR UNDERSTANDING OF ALCOHOL EDUCATION

<table>
<thead>
<tr>
<th>Course Topic</th>
<th>Not Actively Involved</th>
<th>Actively Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Rank</td>
</tr>
<tr>
<td>Physiological Effects</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>Psychological Effects</td>
<td>13</td>
<td>2.5</td>
</tr>
<tr>
<td>Alcoholism and Rehabilitation</td>
<td>13</td>
<td>2.5</td>
</tr>
<tr>
<td>Teen-age Drinking</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Alcohol Education in School Curriculum</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Social Influences</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Drinking and Driving</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Religious Influences</td>
<td>3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

\[ x^2 = 1.85 \text{ 7 df  } p \geq .95 \]

A two-by-eight chi-square test was used to test the question of whether the experimental subjects actively involved in alcohol education differ from experimental subjects not actively involved in their perception of the topics presented in Alcohol Education 555 that contributed to their understanding of alcohol education. The resulting chi-square value of 1.85, with seven degrees of freedom, was not significant (\( p \geq .95 \)). Therefore, the null hypothesis that there is no difference between the two groups in their perception of the topics presented in Alcohol Education 555 that contributed most to their understanding of alcohol education cannot be rejected.
The original expectation was that there would be a significant difference between the active and non-active groups in their perception of the course topics. However, the very small chi-square value raises the question as to whether a significant correlation exists between groups on the rankings of the topics. The question of the degree of association was measured by a Spearman's rho. A correlation of .55 was found (p < .0956) which indicates only a slight agreement between the two groups in the ranking of the topics that contributed most to their understanding of alcohol education. While this establishes a trend in the expected direction, it does not reach an acceptable level of significance.

Table 3.5 shows the frequency of responses by one-hundred nine experimental subjects who returned the completed questionnaire. Eighty-six of the one-hundred nine subjects were not actively involved in alcohol education and twenty-three were. Three subjects of the total one-hundred twelve did not complete the last question. The question of whether the experimental subjects actively involved in alcohol education differ from the experimental subjects not actively involved in their perception of the topics presented in Alcohol Education 555 that contributed least to their understanding of alcohol education was assessed by a two-by-eight chi-square test. The resulting chi-square value of 7.74, with seven degrees of freedom, was not significant (p < .30). Therefore, the null hypothesis that there is no difference between the two groups in their perception of course topics that contributed least to their understanding of alcohol education cannot be rejected.
# TABLE 3.5

FREQUENCY OF RESPONSES BY TWO TYPES OF EXPERIMENTAL SUBJECTS TO COURSE CONTENT CONTRIBUTING LEAST TO THEIR UNDERSTANDING OF ALCOHOL EDUCATION

<table>
<thead>
<tr>
<th>Course Content</th>
<th>Not Actively Involved</th>
<th>Rank</th>
<th>Actively Involved</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religious Influences</td>
<td>36</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Alcohol Education in School Curriculum</td>
<td>15</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Drinking and Driving</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>5.5</td>
</tr>
<tr>
<td>Physiological Effects</td>
<td>8</td>
<td>4.5</td>
<td>2</td>
<td>5.5</td>
</tr>
<tr>
<td>Social Influences</td>
<td>8</td>
<td>4.5</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Teen-age Drinking</td>
<td>4</td>
<td>6.5</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Alcoholism and Rehabilitation</td>
<td>4</td>
<td>6.5</td>
<td>1</td>
<td>7.5</td>
</tr>
<tr>
<td>Psychological Effects</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

\[ x^2 = 7.74 \text{ 7df  } p > .30 \]

It had been expected that the perceptions of the course topics of experimental subjects would be significantly different. However, the non-significant chi-square value again raises the question as to whether a significant correlation exists between groups on the rankings of the topics. The question of the degree of association was measured by a Spearman's rho. A correlation of .43 was found \( (p > .10) \) between the experimental subjects not actively involved and the experimental subjects actively involved in alcohol education on the rankings of the topics that contributed least to their understanding of alcohol education. It is noted that the correlation
does not approach an acceptable level of significance and not even a trend was established in the expected direction.

The question then arose as to whether there was a significant difference between the frequency of responses by both groups to each specific topic. A two-by-two chi-square test was computed on the frequency of "contributed most" responses of the two groups to each specific topic. A two-by-two chi-square was then computed on the frequency of "contributed least" responses of the two groups to each of the eight topics. Finally, two-by-two chi-squares were calculated for each topic on the frequency of "contributed most" and "contributed least" responses by the actively involved and not actively involved groups.

TABLE 3.6

FREQUENCY OF RESPONSES BY TWO TYPES OF EXPERIMENTAL SUBJECTS TO COURSE CONTENT CONTRIBUTING MOST AND LEAST TO THEIR UNDERSTANDING OF ALCOHOL EDUCATION

<table>
<thead>
<tr>
<th>Course Content</th>
<th>Not Actively Involved</th>
<th>Actively Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Most</td>
<td>Least</td>
</tr>
<tr>
<td>Physiological Effects</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>Psychological Effects</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Alcoholism—Rehabilitation</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Teen-age Drinking</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Alcohol Education in School Curriculum</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Social Influences</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Drinking and Driving</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Religious Influences</td>
<td>3</td>
<td>36</td>
</tr>
</tbody>
</table>
None of the resulting chi-square values of the "contributed most" responses approached any level of significance. Chi-square could not be computed on the topics of drinking-driving and religious influences because of the low cell frequency. However, by inspection of the raw data it appears that there is proportionately no difference between the two groups of these two topics.

The chi-square values of the "contributed least" responses also did not approach any level of significance. There were again two topics, alcoholism-rehabilitation, and psychological effects which could not be computed because of low cell frequency. Inspection of the raw data suggests no significant difference between the proportions of the two groups selecting these topics.

Only one chi-square could be computed on the frequency of "contributed most" and "contributed least" responses by the actively involved and not actively involved groups. The chi-square value of this one topic, physiological effects, did not approach the level of significance. No chi-squares were computed on the other seven topics because of the low cell frequencies.

It is evident that from the results of the two-by-eight chi-squares computed on the topics as a group and the results of the two-by-two chi-squares calculated on each specific topic that there is no significant difference between the two groups of experimental subjects in their perception of the course topics which contributed most and least to their understanding of alcohol education. Therefore, the fourth and fifth null hypotheses cannot be rejected.
CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

The purpose of the study was to investigate the effects which Alcohol Education 555 offered by Western Michigan University had upon the participants' future involvement in alcohol education and to attempt to draw conclusions about such a course. The experimental group consisted of 145 of the 184 students who had completed Alcohol Education 555 during the period September, 1963, to August, 1966. The control group consisted of an equal number of students selected from students who matriculated at Western Michigan University at the same time as the experimental group. They were matched with the experimental group on period of enrollment, age, sex, curriculum, and educational level.

A questionnaire was developed to determine the occupations of the subjects in both groups, their employment settings, the presence of alcohol education in their employment setting, their personal activity in alcohol education, the amount of time they devoted to alcohol education, and the amount of training they received in alcohol education. In addition, the experimental subjects were asked to indicate the topics presented in Alcohol Education 555 which contributed most and least to their understanding of alcohol education.
Using a mail questionnaire procedure, ninety-two percent of the experimental group and ninety percent of the control group returned the completed questionnaire.

A chi-square test was used to test the following: (1) the difference between the number of experimental and control subjects actively involved in alcohol education; (2) the difference in the amount of time devoted to alcohol education by those experimental and control subjects so involved; (3) the difference between the number of responses of experimental subjects actively and not actively involved in alcohol education to the course topics which contributed most and least to their understanding of alcohol education. Spearman rho was then used to measure the degree of association between the rank order of the course topics selected by the two groups of experimental subjects to contribute most and least to their understanding of alcohol education.

Conclusions

The following conclusions have been reached within the limitations of the study.

1. The data indicate that a significantly greater number of experimental subjects are actively involved in alcohol education than control subjects. Therefore, the null hypothesis is rejected beyond the .01 level of probability.

2. The data indicate that there is no significant difference in the time devoted to alcohol education by those experimental and control subjects actively involved in alcohol education. Therefore, the null hypothesis cannot be rejected.
3. Inspection of the raw data suggests that there is no difference in the number of experimental and control subjects actively involved in alcohol education who have pursued further training in alcohol education. So few subjects in both groups had experienced further training that no statistical analysis was possible. Therefore, the null hypothesis cannot be rejected.

4. The data indicate that the experimental subjects not involved in alcohol education and the experimental subjects actively involved in alcohol education do not differ significantly in their perception of the topics presented in Alcohol Education 555 which contributed most to their understanding of alcohol education. Therefore, the null hypothesis cannot be rejected.

5. The data indicate that the experimental subjects not actively involved in alcohol education and experimental subjects actively involved in alcohol education do not differ significantly in their perception of the topics presented in Alcohol Education 555 which contributed least to their understanding of alcohol education. Therefore, the null hypothesis cannot be rejected.
Discussion

The first hypothesis was tested to determine whether there are significantly more experimental than control subjects actively involved in alcohol education. Although the data indicate a significant difference in the expected direction, the number of experimental subjects actively involved in alcohol education is small in absolute numbers. Certain factors may account for this.

One factor not considered in this study was the reasons the experimental subjects had for electing Alcohol Education 555. It is quite possible that many enrolled in the course basically to receive two hours of elective credit for graduation or tenure, regardless of the course content. It is also likely that some of the experimental subjects took the course to find out more about beverage alcohol rather than to receive training in alcohol education.

Also, there are some possible limitations which may have a bearing on the experimental subjects' opportunity for teaching alcohol education. Alcohol education is usually formally taught in one of several disciplines, such as health, science, and sociology. Instructors in other disciplines may therefore frequently be limited in their opportunities for involvement in alcohol education by the appropriateness of their subjects.
In addition, Coe (1965) found that alcohol education is usually taught in the ninth and tenth grades in Michigan high schools. This might limit opportunity for involvement in alcohol education if the experimental subjects teaching in the high school were responsible for subject matter related to juniors and seniors.

Coe also found that the majority of elementary schools did not offer any formal alcohol education programs. This again may limit the opportunity of a considerable number of experimental subjects to become involved in alcohol education since twenty-two percent were involved in elementary education at the time they answered the questionnaire.

In view of the possible limitations upon participation in alcohol education discussed above we may speculate that the limited number of experimental subjects involved in alcohol education may not be due solely to disinterest or disinclination.

It may be beneficial for future follow-up studies to investigate the informal as well as the formal activity in alcohol education. It is quite possible that a substantial number of the experimental subjects do integrate subject matter information as well as work toward attitudinal changes concerning beverage alcohol but not in a formal program. It is noted that this study inquired only about the participation of the experimental subjects in formal alcohol education programs.

One interesting note is that the experimental subjects are actively involved in alcohol education in a greater diversity
of educational settings than the control subjects. This may be a result of that part of the Alcohol Education 555 course which deals with methods and materials for presenting alcohol education to the various grade levels.

It was thought that the experimental subjects actively involved in alcohol education would devote more time to alcohol education than those control subjects so involved. However, the results of the study indicate that there was no significant difference. This may be due to several factors.

Coe (1965) found that the large majority of schools in Michigan allotted one week, at the most, to alcohol education to fulfill the requirements of Public Law 364. Also, teachers must adequately cover the subject matter of their particular course in a given amount of time. Because of the demands by the curricula, few schools offer a separate course in alcohol education. If alcohol education is taught, it is taught as a unit within the course content of a particular discipline. Thus, it is confined to a relatively small period of time.

Since these limitations confront most teachers, they may explain why the experimental subjects actively involved in alcohol education do not devote more time to alcohol education than those control subjects actively involved.

The third hypothesis was tested to determine whether a greater number of the experimental subjects who were actively involved in alcohol education would pursue additional training in
alcohol education than control subjects so involved. Inspection of the raw data suggests that this is not so since only two experimental and one control subject had received additional training. However, this may be attributed to several factors.

The increasing innovations in methods and materials resulting from recent research and technology have placed greater demands upon teachers for keeping up with the changes in their particular discipline. Since alcohol education is usually limited to a relatively small period of time in relation to the time devoted to the course in which it is taught, it is possible that the experimental subjects teaching alcohol education feel more compelled to keep up with the changes in the discipline as a whole rather than just a unit within it. It is also quite possible that the course Alcohol Education 555 provided the subjects with sufficient knowledge and resources to enable them to adequately carry out their responsibility of teaching alcohol education.

Further, there is limited opportunity for additional training in alcohol education. Most universities offering training in alcohol education provide only one course. After the students have completed the course, additional training must be received from other sources such as workshops. These workshops, however, are usually offered only by schools that have resource people in the community interested in alcohol education and not just alcoholism. They expose teachers to an objective presentation about alcohol
education for the purpose of changing attitudes and motivating teachers to become involved in alcohol education. Since the focus is on exposing teachers to alcohol education, it is doubtful that teachers who have had a comprehensive alcohol education course such as Alcohol Education 555 would be interested in such workshops.

Because of the demands that current changes in the profession place upon teachers and the lack of opportunity for advanced training in alcohol education, we may speculate that the small number of experimental subjects actively involved in alcohol education who received additional training may not be due solely to disinterest.

An additional hypothesis was that the experimental subjects actively involved in alcohol education would differ significantly from the experimental subjects not actively involved in their perception of the course topic which contributed most to their understanding of alcohol education. However, the data does not substantiate this hypothesis. The Spearman rho was used to measure the degree of association between the two groups on the ranking of the course topics selected and only a trend in the expected direction was established.

This trend is apparent in the rankings of three topics, physiological effects, drinking and driving, and religious influences. Both groups agreed that the topic of physiological effects contributed most to their understanding of alcohol education, i.e., the number of subjects selecting this topic was far
greater than any other agreed upon. This would seem to indicate that prior to taking the course the students had little knowledge about the effects of alcohol upon the human body and this therefore suggests the importance of the inclusion of this topic in an alcohol education program.

The second topic on which there was agreement in ranking was drinking and driving which received the lowest ranking as a result of the fewest number of responses from both groups. The reason for this low ranking may be that the general public has had continuous exposure to the problems of drinking and driving via the various kinds of mass communication. Because of this exposure, the topic of drinking and driving may have less of an impact upon the course participants than the other course topics having less publicity.

Religious influences was also ranked lowest since it received the same number of responses from each group as did drinking and driving. It may be that many subjects either had a strong religious background and were aware of the influences of religion on drinking, or had little, if any, religious background and were not interested in the religion. If so, knowledge of religious influences would appear to be of little value and may explain why so few selected it as contributing most to their understanding of alcohol education.

The last hypothesis, that the experimental subjects actively and not actively involved in alcohol education differ in
their perception of the course topic which contributed least to their understanding of alcohol education, cannot be accepted nor can any significant correlation be found between the two on the rankings of their responses to the course topics.

Only two topics had identical rankings in both groups, religious influences and alcohol education in the school curriculum. Religious influences was chosen by both groups as contributing least to their understanding of alcohol education, i.e., the number of responses by both groups to this topic was far greater than any other topic selected. The high ranking religious influences received for contributing least along with the low ranking religious influences received for contributing most to their understanding of alcohol education would seem to suggest that religious influences are seen as a relatively unimportant area in understanding alcohol education.

The other topic on which there was identical ranking was alcohol education in the school curriculum, which received the second largest number of responses from either group for contributing least to their understanding of alcohol education. It is interesting to note that of the twenty-three subjects actively involved, four chose it as contributing least to their understanding of alcohol education while four chose it as most contributing. One would wonder if this apparent discrepancy results from the course emphasis of the three different university instructors who taught this course or if it relates to the work setting of the individual.
It appears, however, that while there is no significant difference between the two groups on their perception of the course topics that there is no significant agreement. This suggests that the perception of the contribution of the individual topics is not a factor in the participant's proclivity to become involved in alcohol education instruction.

One thing not considered in this study which may explain the lack of consensus of the experimental group to a certain degree is the lapse between the time the subjects completed the course and the time they were asked to react to the questionnaire. It is suggested that future studies compare the attitudinal differences of students who have completed Alcohol Education 555 in which the time interval from course completion to time of investigation can be analyzed.

The focal point of this study was the effects Alcohol Education 555 has had on implementing alcohol education instruction. While the data suggest that the course did have a significant effect in the expected direction on the number of participants actively involved in alcohol education instruction, the absolute number was relatively small. This small number is especially interesting to this writer since the great majority of the participants completed the course in graduate school where choice of subjects is usually carefully planned to meet future needs. The remaining four hypotheses were not supported. It would appear
that the Alcohol Education 555 had very little effect in implementing alcohol education instruction by the participants in this study.

**Recommendations**

In completing this study several recommendations for further research seemed logical.

1. It is recommended that a replication of this study be carried out with Alcohol Education 555 participants who complete the course during the period following this study. This would insure reliability since sixty-five percent of the sample used came from the final year of the three years studied.

2. It is also recommended that any future investigation examine the participants for informal as well as formal activity in alcohol education.

3. It is further recommended that future studies compare the attitudinal differences of students who have completed Alcohol Education 555 where the time interval from course completion to time of investigation can be analyzed.
REFERENCES


May 24, 1967

Mr. Ross Lane,
Guidance and Personnel Services
Western Michigan University
Kalamazoo, Michigan

Dear Mr. Lane:

Miss Tallau turned up one evaluation study, said to be a good one, but it was not of college students. Nevertheless, you might be interested in seeing this Doctor of Education dissertation by Knight Belnap Kerr, *A Program for Education About Alcohol In the Public Schools of Utah*. This dissertation is available from the Rutgers Center Library, or the University of Utah Library or university microfilms. This was a University of Utah dissertation, 1958.

The winter of 1966 *Journal of Alcohol Education* contains a short report: "A Measurement of Change in Knowledge and Attitude Toward Alcohol and Its use in a Class of Nursing Students." This is by Kenneth F. Kuzenski and Hilda Reynolds.

After speaking to you on the phone, I wished I had also given you the name of Dr. Robert D. Russell, the Editor of the *Journal of Alcohol Education*. His title and address are: Professor of Health Education, Southern Illinois University, Carbondale, Illinois.

I am sorry that I cannot do any better, but it does seem that there has been almost no work done at the college level, so power to you.

Sincerely yours,

Milton A. Maxwell
Executive Director

MAM:mld
May 12, 1967

Mr. Ross G. Lane
Counseling Center
Western Michigan University
Kalamazoo, Michigan 49001

Dear Mr. Lane:

We recently received your letter asking about abstracts on the effect of a college alcohol education course.

We have thoroughly searched our abstract archive of the alcohol literature but have found little, in fact only three abstracts, photostats of which we're sending.

There is considerably more on instruction at the high school level, but even then practically nothing as to the effect of such a course.

Hoping that the mentioned material is of value, I am,

Sincerely,

E. W. Moushey
Head, Reference Unit
APPENDIX B

QUESTIONNAIRE--EXPERIMENTAL GROUP

NOTE: Read the question carefully. This information will provide substantial assistance to the research.

1. Check the job descriptions which best describe your vocational position. (Mark with an "X".) If you have more than one, please rank them according to time spent in each. 1 = most time spent in this vocation.

   ( ) Office Manager
   ( ) Business Manager
   ( ) Salesman
   ( ) Buyer
   ( ) Engineer
   ( ) Lawyer
   ( ) Nurse

   ( ) Teacher
   ( ) Counselor
   ( ) Principal
   ( ) Assistant Principal
   ( ) Superintendent
   ( ) Social Worker
   ( ) Clergyman
   ( ) Other (please specify)

2. In what setting are you employed? (Mark with an "X".) If you are employed in more than one setting, please rank them according to time spent in each. 1 = most time spent in this setting.

   ( ) Department Store
   ( ) Insurance Company
   ( ) Hospital
   ( ) Law Firm
   ( ) Elementary K-6
   ( ) Junior High 7-9
   ( ) High School 10-12

   ( ) Junior or Community College
   ( ) College or University, 4 years
   ( ) Family Service
   ( ) Alcoholism Information Center
   ( ) Vocational Rehabilitation Center
   ( ) Church
   ( ) Other (please specify)

3. Is there any formal alcohol education in your employment setting(s)?

   Yes__________  No__________

   Please specify the setting(s).________________________________________________________

4. If the answer to question 3 is yes, do you have responsibilities for formal alcohol education in this setting(s) mentioned?

   Yes__________  No__________

5. If the answer to question 4 is yes, approximately what percentage of vocational time annually do you devote to alcohol education?

   ( ) 0-5%
   ( ) 5-10%
   ( ) 10-20%
   ( ) 20-40%

   ( ) 40-60%
   ( ) 60-80%
   ( ) 80-100%
6. Do you have responsibilities for formal alcohol education in any other setting?

Yes ________  No ________

If yes, please specify the setting. ________________________________

7. If the answer to question 6 is yes, approximately what percentage of time in this setting do you devote to alcohol education?

( ) 0-5%  ( ) 40-60%
( ) 5-10%  ( ) 60-80%
( ) 10-20% ( ) 80-100%
( ) 20-40%

8. Please check the amount of formal education you have received in alcohol education.

( ) none  ( ) 2-3 weeks summer institute
( ) one semester  ( ) 1 week workshop
( ) two semesters  ( ) 1-3 weeks workshop
( ) 1-2 week summer institute  ( ) other (Please specify)

9. Do you want a copy of the conclusions of this study after the data has been compiled and analyzed?

Yes ________  No ________

What aspect of the alcohol education course contributed most to your understanding? If there was more than one, please rank them according to degree of contribution. 1 = greatest contribution, 2 = next greatest contribution, etc.

( ) Physiological effects of alcohol
( ) Psychological effects of alcohol
( ) Social influences on drinking behavior
( ) Religious influences on drinking behavior
( ) Drinking and Driving
( ) Role of Alcohol Education in the School Curriculum
( ) Teen-age drinking
( ) Alcoholism and Rehabilitation
( ) Other (please specify briefly)
What aspects of the alcohol education course contributed least to your understanding? If there was more than one, please rank them according to degree. 1 = least contribution, 2 = next least contribution, etc.

( ) Physiological effects of alcohol
( ) Psychological effects of alcohol
( ) Social influences on drinking behavior
( ) Religious influences on drinking behavior
( ) Drinking and Driving
( ) Role of Alcohol Education in the School Curriculum
( ) Teen-age drinking
( ) Alcoholism and Rehabilitation
( ) Other (please specify briefly)

Thank you for your help.
NOTE: Read the question carefully. This information will provide substantial assistance to the research.

1. Check the job descriptions which best describe your vocational position. (Mark with an "X"). If you have more than one, please rank them according to time spent in each. 1 = most time spent in this vocation.

( ) Office Manager  ( ) Teacher
( ) Business Manager  ( ) Counselor
( ) Salesman  ( ) Principal
( ) Buyer  ( ) Assistant Principal
( ) Engineer  ( ) Superintendent
( ) Lawyer  ( ) Social Worker
( ) Nurse  ( ) Clergyman
( ) Other (please specify)

2. In what setting are you employed? (Mark with an "X"). If you are employed in more than one setting, please rank them according to time spent in each. 1 = most time spent in this setting.

( ) Department Store  ( ) Junior or Community College
( ) Insurance Company  ( ) College or University, 4 years
( ) Hospital  ( ) Family Service
( ) Law Firm  ( ) Alcoholism Information Center
( ) Elementary K-6  ( ) Vocational Rehabilitation Center
( ) Junior High 7-9  ( ) Church
( ) High School 10-12  ( ) Other (please specify)

3. Is there any formal alcohol education in your employment setting(s)?

Yes__________  No__________

Please specify the setting(s).____________________________________

4. If the answer to question 3 is yes, do you have responsibilities for formal alcohol education in this setting(s) mentioned?

Yes__________  No__________

5. If the answer to question 4 is yes, approximately what percentage of vocational time annually do you devote to alcohol education?

( ) 0-5%
( ) 5-10%
( ) 10-20%
( ) 20-40%
( ) 40-60%
( ) 60-80%
( ) 80-100%
6. Do you have responsibilities for formal alcohol education in any other setting?

Yes__________  No__________

If yes, please specify the setting._____________________________________

7. If the answer to question 6 is yes, approximately what percentage of time in this setting do you devote to alcohol education?

( ) 0-5%  ( ) 40-60%
( ) 5-10%  ( ) 60-80%
( ) 10-20% ( ) 80-100%
( ) 20-40%

8. Please check the amount of formal education you have received in alcohol education.

( ) none  ( ) 2-3 weeks summer institute
( ) one semester ( ) 1 week workshop
( ) two semesters ( ) 1-3 weeks workshop
( ) 1-2 week summer institute ( ) other (Please specify) 

9. Do you want a copy of the conclusions of this study after the data has been compiled and analyzed?

Yes__________  No__________

Thank you for your help.
Western Michigan University, in conjunction with the Michigan Department of Public Health Alcoholism Program, is conducting a research project to determine the uses of alcohol education. It is important to understand the extent of a college level alcohol education class upon the general development of alcohol education in our society if alcohol education is to be accomplished effectively; this research is one step in that direction.

We are asking your help as one who has received college level alcohol education in supplying vital data. Shortly you will receive a brief mail questionnaire with a self-addressed, stamped envelope for your convenience. You can provide substantial assistance to this research through the completion and return of the questionnaire.

All data collected are confidential, but a summary report of the research findings will be sent you if you are interested.

Thank you for your help.

William Carlson, Ed.D.
Associate Professor
Research Consultant

Ross Lane
Director of Research
Western Michigan University, in conjunction with the Michigan Department of Public Health Alcoholism Program, is conducting a brief census of Western Michigan University Alumni to see what proportion have, in their vocational activities, gone into work dealing with alcohol education.

As a student at Western Michigan University during the 1963-1966 period, we are asking your help in gathering these data. Shortly you will receive a brief mail questionnaire with a self-addressed, stamped envelope for your convenience. You can provide substantial assistance to this research through the completion and return of the questionnaire.

All data are confidential, but a summary report of the research findings will be sent you if you are interested.

Thank you for your help.

William Carlson, Ed.d.
Associate Professor
Research Consultant

Ross Lane
Director of Research
LETTER 2--EXPERIMENTAL GROUP

Recently you received a letter asking for your help in a research project sponsored by Western Michigan University and the Michigan Department of Public Health Alcoholism Program. We asked that you fill out a brief mail questionnaire.

Massive funds are being spent, at federal and state levels, to initiate alcohol education programs. We are trying to determine what part of those persons having received college level training in alcohol education are currently involved, as part of their vocation, with alcohol education. Findings of this sort could provide guidelines for future allocations of funds and methods of training persons for alcohol education.

Enclosed you will find the questionnaire, along with a self-addressed, stamped envelope. The directions for filling out the questionnaire are found at the top of it. By completing and returning this questionnaire you will be contributing greatly to the effectiveness of this research.

All data will be held confidential, but a summary of the results will be available if you are interested.

Thank you for your help.

William A. Carlson Ed.D.
Associate Professor
Research Consultant

Ross G. Lane
Director of Research
Recently you received a letter asking for your help in a research project sponsored by Western Michigan University and the Michigan Department of Public Health Alcoholism Program. We asked that you fill out a brief mail questionnaire.

Massive funds are being spent, at federal and state levels, to initiate alcohol education programs. We are trying to determine what part of those persons having college level education are currently involved, as part of their vocation, with alcohol education. Findings of this sort could provide guidelines for future allocations of funds and methods of training persons for alcohol education.

Enclosed you will find the questionnaire, along with a self-addressed, stamped envelope. The directions for filling out the questionnaire are found at the top of it. By completing and returning this questionnaire, you will be contributing greatly to the effectiveness of this research.

All data will be held confidential, but a summary of the results will be available if you are interested.

Thank you for your help.

William A. Carlson, Ed.D.
Associate Professor
Research Consultant

Ross G. Lane
Director of Research
LETTER 3--EXPERIMENTAL GROUP

Recently you received a questionnaire and stamped envelope through which we asked your help in a research project sponsored by Western Michigan University and the Michigan Department of Public Health Alcoholism Program. The purpose of the questionnaire is to determine what part of those persons having received college level alcohol education are currently involved, as part of their vocation, with alcohol education. Clearly you, and others with the unique educational experiences you have had, are the only sources for this sort of data.

If you have answered and returned the questionnaire, please disregard this letter. However, if you have not, your attention to this matter would be greatly appreciated. All data will be held confidential, and only the results of the research will be published.

Thank you for your help.

William Carlson, Ed.d.
Associate Professor
Research Consultant

Ross Lane
Director of Research
Recently you received a questionnaire and stamped envelope through which we asked your help in a research project sponsored by Western Michigan University and the Michigan Department of Public Health Alcoholism Program. The purpose of the questionnaire is to determine what proportion of Western Michigan University Alumni who were students in the 1963-1966 period have, in their vocational activities, gone into work dealing with alcohol education. Clearly you, and others with the particular educational experiences you have had, are the only sources for this sort of data.

If you have answered and returned the questionnaire, please disregard this letter. However, if you have not, your attention to this matter would be greatly appreciated. All data will be held confidential, and only the results of the research will be published.

Thank you for your help.

William Carlson, Ed.d.
Associated Professor
Research Consultant

Ross Lane
Director of Research
Some time ago you received a questionnaire and stamped envelope as part of a research project sponsored by Western Michigan University and the Michigan Department of Public Health Alcoholism Program.

Demands on the time of persons -- particularly those in the positions attained by the college educated -- are many. We apologize for making an additional request of you. Only the importance of the research and the uniqueness of the data you can supply excuses our asking you to give a little of your time.

In case you have misplaced the original questionnaire and stamped envelope sent you, we have enclosed another questionnaire and an additional stamped, addressed envelope.

All data will be held in the strictest of confidence.

Thank you for your time.

William A. Carlson, Ed.D
Associate Professor
Research Consultant

Ross Lane
Director of Research
Several weeks ago you received a questionnaire along with a self-addressed, stamped envelope asking your help in a research project sponsored by Western Michigan University and the Michigan Department of Public Health Alcoholism Program.

The need for such information is enormous; the source of this information can only be from persons of your educational experiences. These data, which speculations and guesswork cannot replace, are vital.

Please fill out the questionnaire and return it in the stamped, self-addressed envelope provided. If you have misplaced the questionnaire, we will be happy to send you another if you will contact the Director of Research.

The results of this research will be available to you on request; the information you provide is confidential.

Please extend the help that only you can provide.

William A. Carlson, Ed.D.
Associate Professor
Research Consultant

Ross G. Lane
Director of Research
APPENDIX D

DAILY RETURN RATE OF THE EXPERIMENTAL AND CONTROL GROUP QUESTIONNAIRES

<table>
<thead>
<tr>
<th>Day</th>
<th>Experimental Group</th>
<th>Control Group</th>
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</thead>
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